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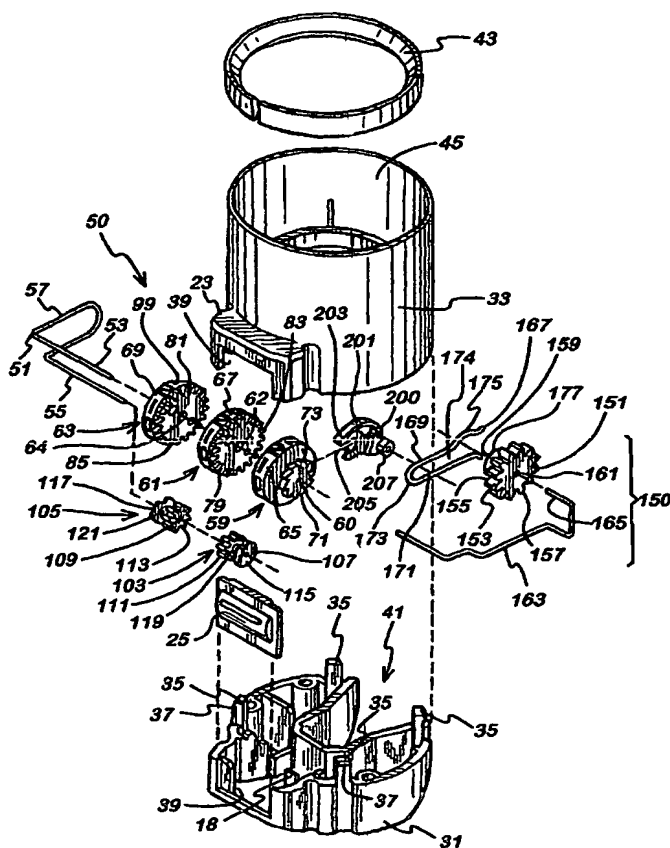
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[Continued on next page]

(54) Title: **ACTUATION INDICATOR FOR A DISPENSING DEVICE**



(57) Abstract: An actuation indicator (19) comprises a drums sub-assembly (50) comprising a rotatable actuation indicator wheel (59), a rocking, ratchet pawl (200) for rotating the indicator wheel in a set direction and a rocking mechanism for the pawl driven by a slipping clutch arrangement, wherein the slipping clutch arrangement comprises a slipping clutch spring (167) engaged at one end to a pinion (153) of a rack and pinion assembly and at a second end to the ratchet pawl.

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/E 3/06466

A. CLASSIFICATION OF SUBJECT MATTER
 IPC 7 G06M1/04 G06M1/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
 IPC 7 G06M A61M

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

PAJ, EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	PATENT ABSTRACTS OF JAPAN vol. 006, no. 195 (P-146), 5 October 1982 (1982-10-05) & JP 57 103585 A (TAMURA ELECTRIC WORKS LTD), 28 June 1982 (1982-06-28) abstract	1, 2, 4-8, 67, 68
X	US 2002/047021 A1 (ENGELBRETH DANIEL K ET AL) 25 April 2002 (2002-04-25) paragraph '0012! - paragraph '0022! paragraph '0108! - paragraph '0136! --- -/--	21, 22, 24, 29, 30, 63

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents :

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- *O* document referring to an oral disclosure, use, exhibition or other means
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- *&* document member of the same patent family

Date of the actual completion of the international search

11 November 2003

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/E 8/06466

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98 56444 A (BONNEY STANLEY GEORGE ;GODFREY JAMES WILLIAM (GB); RAND PAUL KENNE) 17 December 1998 (1998-12-17) cited in the application abstract page 9, line 24 -page 11, line 28; figures 3,4 page 12, line 14 - line 32; figure 5 ---	1-14, 35-62, 65,69
A		21
A	WO 01 28887 A (GODFREY JAMES WILLIAM ;JONES ANTHONY PATRICK (GB); RAND PAUL KENNE) 26 April 2001 (2001-04-26) page 10, line 10 -page 12, line 18 -----	15-20,64

INTERNATIONAL SEARCH REPORT

International application No.
EP 03/06466

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☒ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☒ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. Claims: 1-8,67,68

Axle of a rotatable element in a counter, the axle being a spring for biasing the rotatable element towards an engaging member.

2. Claims: 9-14, 35-62,65,66,69

A drug dispensing apparatus and corresponding method of patient compliance, and its associated actuations counter in which a drive wheel engages a friction clutch, where the friction clutch actuates a ratchet pawl to engage a ratchet wheel associated with the lowest order indicator drum of the counter.

3. Claims: 15-20,64

Canister casing having a shoulder on its inner surface to assist in fixing the canister in the casing.

4. Claims: 21-29,63

Canister casing adapted for assembly by provision of a sub-assembly comprised of a canister cap and an actuation counter.

5. Claims: 30-34

Canister sleeve adapted to receive different forms of canister valve stem ends.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP03/06466

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